

code. Suffice it to say that he has few, if any, supporters in America, and it is doubtful whether he has any in Europe. Possibly the vituperation poured upon all who disagree with him has prevented his ideas from receiving as serious consideration as they deserve. It is certainly unfortunate that he should regard himself as an infallible referee upon all points in dispute, and hurl anathemas at all who refuse to acknowledge his authority, characterizing their propositions as "dishonest," "inexecutable," "false" and "lawless." JOHN HENDLEY BARNHART.

## PROCEEDINGS OF THE CLUB

WEDNESDAY, JANUARY, 27, 1904

This meeting was held at the New York Botanical Garden with Professor Underwood in the chair; thirty persons were present.

The treasurer's report deferred from the last meeting was read and also that of the auditing committee.

The report of the auditing committee showed that there were 194 active members at the time of the last meeting, January 12.

The editor-in-chief as chairman of the committee for securing increased sale of the publications of the Club announced Miss Vail and Dr. Howe as the other members of the committee.

The following resignations of members of the Club were read and having been approved by the treasurer were accepted: Miss Amy Schussler, Mr. Ewen MacIntyre, Mr. Marshall Bright, Dr. Alexander P. Anderson, Miss E. W. Kornman, Dr. L. Schoeney and Mr. E. G. Buttrick.

The announcement was made that President Brown had reappointed all the standing committees with the same membership as last year, viz.,

Committee on Finance: H. H. Rusby, J. I. Kane, C. F. Cox.

Committee on Admissions: E. S. Burgess, Delia W. Marble, J. K. Small.

Committee on Local Flora:

*Spermatophytes*: N. L. Britton, E. P. Bicknell, H. H. Rusby, Fanny A. Mulford.

*Cryptogams* : L. M. Underwood, M. A. Howe, Elizabeth G. Britton.

Committee on Program : N. L. Britton, M. A. Howe, L. M. Underwood.

Committee on Field Excursions : Eugene Smith, G. V. Nash, Miss M. L. Sanial, Miss L. K. Lawall, E. W. Berry.

The first paper on the scientific program was by Dr. J. K. Small on "Some recent Explorations in southern Florida." Dr. Small was accompanied on his trip by Mr. J. J. Carter of Pennsylvania and for a part of the time by A. A. Eaton, who paid special attention to the orchids and ferns. From Miami as a base, expeditions were made in different directions. One trip was made to the northward in the direction of Ft. Worth. Four strikingly different plant formations were noted in this region : (1) sand ridges covered with gnarled and stunted trees and shrubs mixed with cacti with almost no grass or herbaceous vegetation ; (2) low-lying moist lands covered with grasses and sedges but destitute of trees and shrubs ; (3) the pine lands ; and (4) the hammocks filled with broad-leaved evergreens and deciduous trees. The country south of Miami is just being opened up to settlement and is still in a primitive condition. Most of the excursions were in this direction, explorations being made for a distance of 45 miles. The region consists of low coral-limestone ridges with no appreciable soil but still supporting a dense pine forest. The lower levels are filled with water and constitute arms of the everglades. The pine lands are interspersed with occasional small hammocks. An exceedingly interesting flora was found, and over a thousand numbers were collected, which include an unusual proportion of new and interesting things. So far as the collections have been studied the plants from the hammocks show a close relationship to the Cuban flora and include a considerable number of West Indian species not heretofore known from the mainland. The pineland species on the contrary are largely endemic and include many undescribed species.

In the discussion which followed the reading of the paper it was stated that the expedition would probably add at least a hundred species to the known flora of the United States.

The second paper was by Dr. J. C. Arthur on "An interesting unpublished Work on the Fungi." This paper was printed in the issue of TORREYA for February.

The third paper was by Dr. N. L. Britton on "The Birch Trees of North America." Recent study in arranging the dendrological exhibit in the Museum, has shown the necessity for a further investigation of our arborescent flora. In some genera, notably in *Fraxinus*, too many species are now recognized and some reductions will be necessary. In the birches on the contrary, it is necessary to recognize at least four new species. One of these is in the Alleghany region, and the others are north-western.

F. S. EARLE,  
Recording Secretary.

FEBRUARY 9, 1904

The following persons were elected to active membership: Miss Margaret H. Stone, 254 West 93rd St., N. Y. City; Miss L. A. C. Howard, University Heights, N. Y. City; Miss Marion E. Latham, 417 West 148th St., N. Y. City; Miss Aurelia B. Crane, Scarsdale, Westchester Co., N. Y.

The committee on field excursions presented its annual report for 1903. It was received and ordered placed on file with the minutes.

The first paper on the scientific program was by Mr. Homer D. House on "The Influence of some Aluminium Salts on Plant Growth." The paper was a preliminary report on some experiments with aluminium sulphate, aluminium potassium sulphate, aluminium nitrate and aluminium chloride to test their effect on plant growth when used in very weak solutions of varying strength. The seedlings of *Lupinus albus* were used in these tests as being best adapted to the purpose on account of their rapid vigorous growth and also because they have been previously used in similar tests with other toxic salts. The results obtained with all four of these salts were entirely parallel but those with aluminium sulphate were most marked. All were very poisonous and entirely inhibited growth till very dilute solutions were reached. When the point of dilution was reached

that permitted growth to take place, it still greatly retarded it. With further dilution the amount of retardation decreased until a point was reached when the action became stimulative and the rate of growth was considerably above the normal. This was to be expected, as sufficiently dilute solutions of many toxic salts are known to have a stimulating effect on plant growth. With still more dilution the stimulative effect became less marked until the normal rate of growth was again reached. Very unexpectedly, however, it was found that when dilutions were carried still further, instead of remaining at the normal, a distinct retardation of growth was again observed. As the dilution still increased another point was reached where the effect was stimulative though less strongly so than in the first case. Some of the series of dilution cultures showed as many as three distinct succeeding waves of depression and stimulation following each other with decreasing strength. Further experiments in this interesting field are in progress.

The second paper was by Mr. G. V. Nash on "A Collecting Trip to Haïti." It was illustrated by a large number of photographs and herbarium specimens and gave a graphic account of the experiences of a botanical collector in this interesting but little known country. The difficulties of travel are very great. No one is allowed to travel in the interior at all without thoroughly satisfactory letters to the authorities. Even with government permission secured, no accommodations for the white traveler could be found except for the unfailing hospitality of the priests, who are nearly all educated Frenchmen. They are very often the only white men in their districts.

The flora of the sea-shore is much the same as in the other West Indies, but as one goes toward the interior the character of the vegetation soon changes and a large proportion of interesting endemic species is found.

F. S. EARLE,

*Recording Secretary.*

#### NEWS ITEMS

Professor F. S. Earle, of the New York Botanical Garden sailed on February 25 for a few weeks' visit to Cuba.